

Application No. 10/565,291
Amdt. Dated: July 10, 2008
Reply to Office Action Dated: April 17, 2008

REMARKS/ARGUMENTS

The Examiner is thanked for the Office Action mailed April 17, 2008. The status of the application is as follows:

- Claims 1-16 and 18-22 are pending, claims 1, 2, 6-8, 12 and 22 have been amended herein, and claims 15, 16, and 18-21 are allowed;
- Claims 6 and 22 are objected to for informalities;
- Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph;
- Claims 1, 6, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Adachi et al. (US 6,304,626 B1);
- Claims 1, 6-8, and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffman (US 6,934,354 B2) in view of Hoffman et al. (US 5,799,057);
- Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adachi et al in view of Tang (US 5,949,850); and
- Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffman in view of Hoffman et al, (US 5,799,057), and further in view of Tang.
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The objections and rejections are discussed below.

The Objection of Claims 6 and 22

Claims 6 and 22 stand objected to for informalities. In particular, claims 6 and 22 include typographical errors. This objection should be withdrawn as claim 6 and 22 have been amended herein to cure the informalities as suggested by the Office.

The Rejection of Claims 1-14 under 35 U.S.C. 112, Second Paragraph

Claims 1-14 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 1-13, the Office asserts that is it unclear whether the radiation detector comprises the detector subassembly module and the radiation-absorbing mask. The

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rejection of these claims should be withdrawn as the claims have been amended herein to positively claim the detector subassembly module and the radiation-absorbing mask.

With respect to claims 7 and 8, the Office asserts that the limitations regarding the anti-scatter vanes are indefinite as the vanes are not positively claimed as part of the radiation detector. This rejection should be withdrawn as claims 7 and 8 have been amended to depend from claim 6, which positively claim the anti-scatter vanes as part of the anti-scatter module.

With respect to claim 12, the Office asserts that the limitations regarding the scintillation elements is indefinite since it is unclear whether the scintillation elements are part of the scintillation array. The rejection of claim 12 should be withdrawn as claim 12 has been amended to recite that the scintillation array includes scintillation elements.

With respect to claim 14, the Office asserts that the limitation “an array of the detector elements” lacks antecedent basis. Applicant traverses this rejection as line 9 of claim 14 recites “an array of detector elements” and line 12 of claim 14 recites “the array of the detector elements.” Applicant cannot find the limitation noted by the Office in claim 14. Accordingly, this rejection is moot.

The Rejection of Claims 1, 6, and 12 under 35 U.S.C. 102(b)

Claims 1, 6, and 12 stand rejected under 35 U.S.C. 102(b) as being anticipated by Adachi et al. This rejection should be withdrawn because Adachi et al. does not teach each and every element as set forth in the subject claims and, therefore, does not anticipate claims 1, 6, and 12.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). MPEP §2131.

Independent **claim 1** has been amended to recite that the second aligning means includes alignment pins that align the anti-scatter module with the detector subassembly module. Adachi et al. does not teach or suggest such claim aspects. As noted in the reply to the previous Office Action, Adachi et al. is directed towards cancelling out the instability of sensitivity of x-ray detection of the edges and arrangement errors of x-ray detecting elements in the slice direction. To this end, Adachi et al. disclose a detector array 5 having a plurality of detecting elements 6.

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A mask 14 is placed on the detector array 5, between the detector array 5 and a collimator 11. The mask is formed with a pattern of shield portions in line form, each extending substantially parallel to the channel direction to shield edges of all the x-ray detecting elements 6 arranged in the x direction from incident x-rays. Adachi et al. alleges that this arrangement cancels out the instability of sensitivity of x-ray detection of the edges of the x-ray detecting elements 6 and arrangement errors of the x-ray detecting elements 6 in the slice direction. (See Abstract and Figs. 4 and 5). However, Adachi et al. is silent regarding a detector array with a second aligning means that includes alignment pins that align the anti-scatter module with the detector subassembly module as recited in amended claim 1. Accordingly, the rejection of claim 1 should be withdrawn.

Claims 6 and 12 directly depend from claim 1 and are allowable at least by virtue of their dependencies. Accordingly, the rejection of these claims should be withdrawn.

The Rejection of Claims 1, 6-8, and 10-13 under 35 U.S.C. 103(a)

Claims 1, 6-8, and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffman in view of Hoffman et al. This rejection should be withdrawn because the combination of Hoffman and Hoffman et al. does not teach or suggest all the limitations of the subject claims and, therefore, fails to establish a *prima facie* case of obvious with respect to the subject claims.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, (CCPA 1974). MPEP §2143.03.

As discussed *supra*, independent **claim 1** has been amended to recite that the second aligning means includes alignment pins that align the anti-scatter module with the detector subassembly module. The Office relies on Hoffman to teach a second alignment. However, Hoffman does not teach or suggest a second alignment means with alignment pins that align the anti-scatter module with the detector subassembly module. Rather, Hoffman is directed towards a collimator assembly defined by a series of multi-piece collimator elements or plates that extend along at least one dimension of a scintillator pack. Each collimator element has a collimating component and a shielding component that are structurally independent from one another. The collimating components may be connected to the shielding components or separated by a small

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air gap. The shielding components are wider than the collimating components but the collimating components have a greater height. With this construction, the collimator assembly optimizes collimation and shielding with lower material requirements and reduced overall size. (See Abstract). Hoffman is silent regarding a detector array including alignment pins that align the anti-scatter module with the detector subassembly module, as recited in claim 1. Thus, this rejection should be withdrawn.

Claims 6-8 and 10-13 directly or indirectly depend from claim 1 and are allowable at least by virtue of their dependencies. Hence, this rejection should be withdrawn.

The Rejection of Claim 9 under 35 U.S.C. 103(a)

Claims 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adachi et al. in view of Tang. **Claim 9** indirectly depends from claim 1 and is allowable at least by virtue of this dependency. As such, this rejection should be withdrawn.

The Rejection of Claim 9 under 35 U.S.C. 103(a)

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffman in view of Hoffman et al., and further in view of Tang. **Claim 9** indirectly depends from claim 1 and is allowable at least by virtue of this dependency. Therefore, this rejection should be withdrawn.

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Conclusion

In view of the foregoing, it is submitted that the claims distinguish patentably and non-obviously over the prior art of record. An early indication of allowability is earnestly solicited.

Respectfully submitted,



Anthony M. Del Zoppo, III Reg. No. 51,606
Driggs, Hogg, Daugherty & Del Zoppo Co., L.P.A.
38500 Chardon Road
Willoughby Hills, Ohio 44094
Phone: 1 440.391.5100
Fax: 1 440.391.5101

Direct all correspondence to:

Thomas M. Lundin, Reg. No. 48,979
Philips Intellectual Property & Standards
595 Miner Road
Cleveland, Ohio 44143
Phone: 1 440.483.4281
Fax: 1.440.483.2452